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making choices



Cover: Contour stripcropping of corn and alfalfa controls soil erosion on this Green County, Wis., farm. (Photo by Ron Nichols.)

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Richard E. Lyng
Secretary of Agriculture

Wilson Scaling
Chief, Soil Conservation Service

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Comments from the SCS Chief:

Common Sense Alternatives for Conservation Compliance

FLEXIBILITY and common sense have always prevailed in Soil Conservation Service and conservation district activities. And that's just as true today as we help farmers meet the conservation compliance provisions of the Food Security Act of 1985.

Wherever there is highly erodible cropland in this country, local SCS Field Office Technical Guides offer alternative conservation systems. This way, we're sure that farmers subject to the conservation compliance deadlines have options that are economically and technically feasible for local conditions.

I wish to thank local conservation districts, farm organizations, and other groups helping SCS develop these acceptable conservation alternatives. Out of all this effort we're going to see substantial reductions in soil erosion.

The use of common sense systems also means that we'll listen to farmers who come to us with conservation systems that they've devised themselves. If we find these systems achieve a comparable level of erosion reduction to those in our local technical guide, we'll certify to the conservation district that they meet the criteria of the guide.

As the December 31, 1989, deadline for conservation compliance plans rolls around, all landowners can be confident that SCS is reasonable and practical. We will offer them conservation alternatives to help them stay in business and achieve the erosion reduction intended when Congress passed the conservation compliance provision.



Alternatives . . .



Gary Wagnild of Sheridan County, Mont., adopted an alternative conservation system after concluding that continuous cropping and chemical fallow were not practical for his operation. (Photo by Brad Anseth.)

What Are Alternative Conservation Systems?

THE DEADLINE for conservation compliance plans under the Food Security Act of 1985 (FSA) is just around the corner—December 31, 1989. Soil Conservation Service Chief Wilson Scaling has a message for farmers who have highly erodible cropland and who have not yet signed up for their plan. The message is this: "Don't let misconceptions about what is required keep you from meeting the deadline. There are more options than farmers think."

SCS is making sure that conservation planning options are economically and technically feasible for local conditions by adding alternative conservation systems to SCS Field Office Technical Guides.

For an explanation of these alternative systems, SOIL AND WATER CONSERVATION NEWS interviewed

for Conservation

SCS Deputy Chief for Technology
Robert Shaw:

Q. What is an alternative conservation system?

A. It's a system of conservation practices that provides acceptable erosion control for FSA purposes. It is a combination of practices considered by local experts to substantially reduce soil erosion on highly erodible land.

Q. How do alternative conservation systems differ from conservation systems SCS might otherwise recommend?

A. In our view, a basic conservation system is one that reduces erosion to, or below, the soil-loss tolerance level. Alternative conservation systems will reduce the rate of soil erosion substantially, but they won't necessarily achieve what basic systems can achieve.

The FSA has dramatically changed the nature of the Nation's soil and water conservation program. Conservation programs are now more closely tied to those USDA programs that affect farmers' income. Farmers have more of a financial incentive to practice conservation than ever before.

Q. What local input did SCS consider in establishing alternative conservation systems?

A. While alternative conservation systems are ultimately an SCS responsibility, we did consult conservation districts, farm organizations, and other local groups. SCS State conservationists and specialists at our national technical centers make sure that alternative conservation systems are consistent across county and State lines.

Q. Have alternative conservation systems required SCS to change any technical standards for its Field Office Technical Guides?

A. No. The conservation standards of SCS have not been altered by the introduction of alternative conservation systems, and it is not our intent to sacrifice quality or reduce our objective of protecting the resource base. SCS practice standards and specifications remain the same, and the conservation work applied will be the same high quality.

Q. What do you think will be the overall effect of alternative conservation systems on SCS operations?

A. Alternative conservation systems will speed up the technology transfer process to landowners. But how much soil and water conservation is achieved depends ultimately on landowners. It begins when they apply that first conservation practice to the land. Alternative conservation systems are a new conservation tool and an opportunity to put more conservation on the land.



Read Smith of St. John, Wash., was among several conservation district supervisors helping to develop alternative conservation systems for the Palouse area of Washington. Smith, who was named National Conservation Farmer of the Year in 1985 by the DuPont Company, predicts the alternative systems will increase the amount of land receiving conservation treatment. (Photo by Ron Nichols)

Despite its firm deadlines, the conservation compliance provision offers a great deal of flexibility. . . . developing a conservation plan comes down to choosing from a number of desirable alternatives.

Deadlines Firm, Plans Flexible

THE FOOD SECURITY ACT of 1985 (FSA), also known as the 1985 Farm Bill, contains provisions that bring more consistency to programs of the U.S. Department of Agriculture (USDA). These provisions are designed to reduce soil erosion and its associated off-site effects, encourage conservation of natural wetlands, and promote a more productive and competitive agriculture.

The conservation compliance provision applies to highly erodible cropland that was used to produce an agricultural commodity during any of the 1981 to 1985 crop years. Some 141 million acres—over one-third of the Nation's 421 million acres of cropland—are subject to this provision. Farmers who produce an agricultural commodity on this land must have a conservation plan that is approved by their conservation district if they wish to maintain their eligibility for USDA program benefits.

About 80 percent of all farmers producing crops on highly erodible land currently participate in USDA programs and will likely want to maintain their eligibility. These farmers will need a conservation plan developed by December 31, 1989, and will need to fully implement those plans by December 31,

1994. Erosion has already been controlled on about 34.6 million acres of highly erodible cropland, and 45 million acres are expected to be enrolled in the Conservation Reserve Program. Most of the remaining 60-plus million acres may require some level of additional conservation treatment.

Despite its firm deadlines, the conservation compliance provision offers a great deal of flexibility. Most farmers discover that developing a conservation plan comes down to choosing from a number of desirable alternatives. Conservation plans developed with SCS assistance include farm-proven, cost-effective conservation systems that allow farmers to continue producing crops while reducing soil erosion. These systems were developed after considering the economic impact to the farmer, social acceptability of the measures, and technical feasibility in determining the level of erosion control necessary on highly erodible land.

Where are we in implementing the conservation provisions? As of July 1, 1988, highly erodible land determinations had been completed on 76 percent of the land subject to the conservation provisions, conservation planning had been completed on 38 percent, and conservation plans had been applied on 12 percent. Sixteen States had each developed conservation plans on over 1 million acres.

About 58 percent—or 1.8 billion tons—of the total annual soil loss from U.S. cropland occurs on highly erodible cropland. When fully implemented, the conservation compliance provision is expected to reduce erosion by up to 600 million tons annually, or about 20 percent of

the total cropland erosion. The actual reduction will depend on the level of compliance that is technically and economically feasible.

The conservation compliance provision provides a strong conservation dimension to USDA commodity and loan programs. By providing farmers with effective, workable conservation plans, SCS can maintain its traditionally strong relationship with farmers, help them conserve our natural resources, and provide for a more productive and competitive agriculture.

Dan Merkel, conservation planning and application specialist, SCS, Washington, D.C.



David Gumm of Whitman County, Wash., has made adjustments in his tillage operations to leave more residue as part of his alternative conservation system. (Photo by Ron Nichols.)

While the alternative systems varied from State to State, they all accomplish a substantial reduction in erosion and are reasonable and practical.

NTC's Help Develop Alternatives

EVER SINCE PASSAGE of the Food Security Act of 1985 (FSA), one manual in local offices of the Soil Conservation Service has received more attention than all the others. That book is the Field Office Technical Guide.

For those who farm highly erodible cropland, the technical guide provides the basic criteria for planning and implementing the conservation systems necessary to remain eligible for certain programs of the U.S. Department of Agriculture. Included in the technical guide are alternative conservation systems for those farmers who would otherwise incur unreasonably high costs in reducing erosion on highly erodible cropland.

Across the Nation, SCS, with local input, has developed alternative conservation systems to treat highly erodible cropland while preserving the economic viability of the farming unit. SCS State offices were assisted by the agency's four regional national technical centers (NTC's), which are responsible for ensuring the high quality of technical standards in Field Office Technical Guides.

The South National Technical Center (SNTC) in Fort Worth, Tex., for example, began helping Southern States develop the new technical guide material in January 1987. The SNTC developed guidelines that included examples of different treatment options for addressing different resource concerns for each major land use. The SNTC also provided several treatment options to reduce soil erosion as part of a complete Resource Management System (RMS)—commonly referred to as a basic system.

At an SNTC workshop in March 1987, State staffs were encouraged to use alternative conservation systems as a foundation for a basic system or RMS. State staffs made proposals and discussed them with NTC specialists. State staffs also met to coordinate basic and alternative systems across State lines. Following the March workshop, each State office sent its technical guide material to the SNTC for review. While the alternative systems varied from State to State, they all accomplish a substantial reduction in erosion and are reasonable and practical.

In December 1987, the SNTC hosted another workshop to review FSA activities. The workshop was attended by resource conservationists, agronomists, biologists, soil scientists, and engineers from the State staffs; technical specialists from the SNTC; and program and policy leaders from National Headquarters (NHQ). Representatives of the U.S. Department of the Interior's Fish and Wildlife Service also attended. In providing a forum for the different staffs to interact, representatives from each discipline were given a full day to meet with those from other disciplines, along with the SNTC and NHQ specialists.

As the State staffs revise and update their Field Office Technical Guides, the SNTC staff provides reviews and concurrence. This assistance is another example of different levels of the agency working together to uphold high technical standards.

Don Newman, resource conservationist, SCS, SNTC, Fort Worth, Tex.

Comparing Costs to Benefits

IN NEW YORK, the benefits of alternative conservation systems for meeting the conservation compliance provision of the Food Security Act of 1985 are compared to installation costs, and land users are not expected to plan a system where costs exceed benefits.

Two basic factors are used to determine benefits: the reduced loss of fertilizer elements and the reduced loss of soil productivity. Depending on the soil, these two factors result in benefits ranging from \$0.80 to \$2.10 per ton of soil held in place on cropland fields.

Suzette Benway, soil conservation technician for the Soil Conservation Service in Onondaga County, N.Y., recently helped Martin Dean develop a conservation plan for his 120-acre dairy and cash grain farm. For two steep fields, Benway recommended an alternative conservation system that Dean could afford and that would substantially reduce soil erosion.

"By using a computer program called FSALT (Food Security Act Alternative Plan), our conservationists have to enter only two things, the soil mapping unit and the crop rotation," said Paul Webb, SCS district conservationist, "and the computer calculates the present erosion, determines the erodibility index, and displays alternative conservation treatments along with remaining soil loss and costs per ton of soil saved."

"Most of the Dean farm was no problem to plan," Benway said. "Most of his fields were eroding at about 8 tons per acre per year. Adopting contour farming and stripcropping brought soil loss to below 2 tons per acre per year with a favorable benefit-to-cost ratio.

"The biggest challenge was in two fields where the average slope was 20 percent," Benway continued. "The annual erosion rate was 16 tons per acre. The only way to reach the soil-loss tolerance level was a system of terraces and contour strips that would cost \$4.72 per ton saved versus the benefit per ton of only 90 cents.

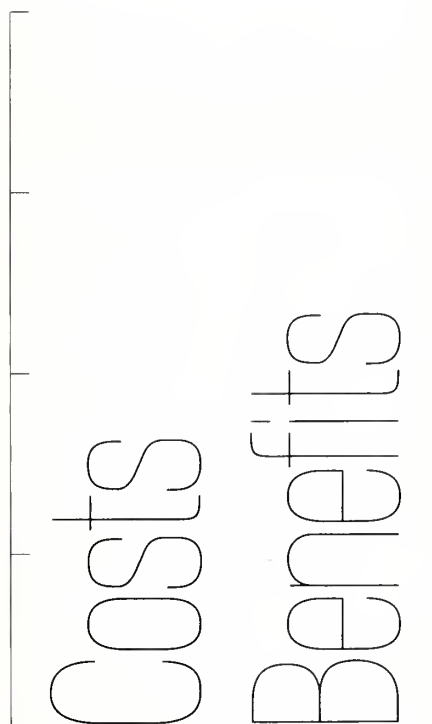
"Although the soil-loss tolerance level for the soils in these fields is 3 tons per acre per year, there was no cost-effective way to get that low. So I looked for an alternative that would reduce soil loss as close to that level as possible and still have benefits greater than costs.

"One acceptable alternative called for more hay in the rotation and a switch to a reduced tillage system," Benway said. Dean agreed, and Benway was able to get the 16-ton soil loss down to 5 tons. The cost was only 76 cents per ton of soil saved compared to a benefit of 90 cents."

Dean said that he is happy with the plan. "I knew I couldn't afford to spend \$200 an acre for terraces on those steep fields, but I needed to keep them in production," said Dean. "I was surprised that somebody from SCS would agree with me and be willing to work out something this reasonable that gets the job done."

In many cases, alternative conservation systems can be the means of reducing the highest rates of soil erosion to reasonable rates while keeping the farmer on the farm and eligible for U.S. Department of Agriculture program benefits.

Paul Dodd, State conservationist, SCS, Syracuse, N.Y.



Montana Farmers Welcome Flexibility

IN MONTANA, farmers welcome the flexibility offered by the alternative conservation systems developed by the Soil Conservation Service for meeting the conservation compliance provision of the Food Security Act of 1985.

Frank Gariglio, SCS district conservationist for Sheridan County in northeastern Montana, is working with farmers with soils and slopes so complex that cross slope farming, grass buffers, and other options are usually impractical. Gariglio estimates that half of the 650 farmers in the county farm land that has a potential for severe water erosion because of steep slopes. "Many farmers can't produce enough crop residue to protect the land under a crop-fallow system," he said.

In the past, conservation systems frequently included recropping or continual cropping, which limited the summer fallow period. "Most farmers said that wasn't practical," Gariglio said.



"The alternatives are reasonable enough now," said Montana farmer Gary Wagnild.

Alternatives Help Oklahoma Farmer Comply

BILL JOHNSON of Hollis, Okla., farms 156 acres of highly erodible fine sandy loam soil. He grows cotton, peanuts, and watermelons, which are low-residue crops, in a part of the State where wind erosion is a serious problem.

The predominant soil on Johnson's farm is Grandfield fine sandy loam, which can erode at 40 tons per acre per year when farmed in continuous cotton. When Johnson learned of the conservation compliance provision of the Food Security Act of 1985, he knew his land would be considered highly erodible and that he would need a

conservation plan to remain eligible for many programs of the U.S. Department of Agriculture.

Not being one to put things off, Johnson headed straight to the local field office of the Soil Conservation Service for a plan. SCS District Conservationist Larry Odom reviewed with him the estimated soil loss on his land under his current cropping systems. Some of the losses were too high to be in compliance, especially on the cotton land. The simplest solution, planting the land to grass, would solve

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"We are getting some significant soil savings, and not adversely affecting farm economics," Gariglio said.

Sheridan County farmer Gary Wagnild agrees. "I was really concerned when I started my conservation plan," he said. "Sticking to tolerable soil loss was too strict. And the ways to meet that—continuous cropping and chemical fallow—are workable only if you have the base to seed more crop or have a market for alternative crops."

After the approval this past winter of alternative conservation systems, Gariglio was able to offer a system that allows farmers to maintain a crop-fallow system with minimum tillage. This system should reduce annual water erosion rates from 25 tons per acre to 9 or less. "We are getting some significant soil savings, and not adversely affecting farm economics," Gariglio said.

The response to the expanded alternatives has been favorable. "There's a lot less frustration for many farmers," Gariglio said. "Before, if they agreed to a conservation plan that met the tolerable erosion level, they didn't have

enough crop base. And without adding recrop or annual crop, they couldn't get a conservation plan that met the compliance provision. A real Catch-22 situation."

Wagnild agrees. "The alternatives are reasonable enough now," he said. His conservation plan calls for adjusting his strips, installing grass buffer strips across some less complex slopes, and maintaining maximum crop residue. He also plans to experiment with alternative crops like millet and safflower as a way to limit his summer fallow.

Although conditions vary, farmers elsewhere in the State also welcome the flexibility offered by the locally approved alternative conservation systems. According to Harold Cottet, SCS district conservationist, most of the 670 farmers in Blaine County have been able to significantly reduce wind erosion by making a minor change in their

tillage operations. "These farmers stopped using a rod weeder on their last tillage trip," Cottet said. "That leaves enough ridges or semiridges and crop residue to reduce wind erosion rates by about 5 tons per acre."

Sid Egbert and his father, Art, farm over 2,500 acres in Blaine County near the Canadian border. Sid agrees with Cottet. "I know I can maintain more residue," he said. "I'm going to narrow up some strips, try seeding a solid stem wheat, and try some tillage changes."

This is the first time Egbert has worked with SCS and the local conservation district. "I haven't found anything I don't like about the conservation plan," said Egbert. "I had some questions on our 700 acres of irrigated land, but SCS conservation planners worked with us and gave us the flexibility to change."

Brad Anseth, public affairs specialist, SCS, Bozeman, Mont.

Johnson's erosion problems, but wouldn't fit his operation. He wanted to continue growing crops.

Odom began looking at the possibilities offered under the alternative conservation systems developed by SCS. What he discovered was that one option he had already considered—putting strips of forage sorghum or milo between his cotton rows—fit one of the alternative systems and would reduce the erosion to an acceptable level.

Odom helped Johnson develop a conservation plan that he will begin implementing this summer. The plan includes planting strips of milo a minimum of 12 feet wide and not

more than 250 feet apart. It also includes a winter cover crop for Johnson's 10 acres of peanuts. Johnson will broadcast small grain seed and fertilizer just before harvesting the peanuts. The harvesting operation will cover the seed with enough soil for germination.

"Putting in the strips will be a little extra effort and expense," said Johnson. "But it will be worth it to control the erosion, and it will make me money in the years to come."

Dwain Phillips, public affairs specialist, SCS, Stillwater, Okla.



Bill Johnson is applying an alternative conservation system on his 156-acre farm in Harmon County, Okla.

Texas Sandfighters Choose Windstrips

TEXAS FARMERS Ronald Thuett, Sunny Lupton, and Coy Franks are doing less sandfighting and getting higher yields thanks to an alternative conservation system that will also help them remain eligible for certain U.S. Department of Agriculture program benefits.

The alternative conservation system they are using came from the efforts of conservation districts, conservationists, and researchers to find new and inexpensive ways to reduce wind erosion on Texas cropland and meet the requirements of the Food Security Act of 1985.

One approach that appears to be working well is narrow strips of perennial grass strategically grown across a field. These wind barriers, called windstrips, have proven so effective and inexpensive in reducing erosion that they are included in the alternative conservation systems developed by the Soil Conservation Service.

Researchers with Texas Tech University at Lubbock recently completed a 3-year study analyzing the feasibility of using windstrips on highly erodible land. The study concluded that wind stripcropping with perennial grass requires only 2 to 6 percent of the field acreage, poses no weed or pest problems, enhances crop growth, and reduces the need for emergency tillage (called sandfighting by local farmers) to increase cloddiness and reduce wind erosion.

The three High Plains farmers—Thuett, Lupton, and Franks—grew perennial windstrips as part of the study.

"I have been using lovegrass windstrips for 5 years," Thuett said. "The improved quality of my cotton crop has more than paid for putting in the system. The strips have cut my sandfighting by 75 percent, and they've reduced replanting by 50 percent. I have seen improved vigor

Alternatives in North Carolina

THERE ARE few problems with helping corn, soybean, and small grain farmers comply with the FSA (Food Security Act of 1985)," said Bill Harrell, district conservationist for the Soil Conservation Service in Johnston County, N.C. "Most problems are coming from land in tobacco."

Corn, soybeans, and wheat cover more acres than tobacco. Yet, tobacco accounts for 50 percent of the State's cash receipts from crops.

Despite its economic importance, the alternative conservation sys-

tems developed by SCS for North Carolina do not single tobacco out. "We feel that the tobacco farmer and the corn or soybean farmer should be treated the same in terms of making significant reductions in soil erosion on highly erodible fields," said Mitchell Clary, SCS assistant State conservationist.

SCS has developed alternative conservation systems based on land capability classes that apply to all crops grown in the State. "A number of options were developed for each capability class," said Clary. "They were choices already commonly used and familiar to local farmers. The alternative conserva-

One answer that appears to be working well is narrow strips of perennial grass strategically grown across a field.

of my cotton crop because of less wind damage and blowing sand as well as an increase in yields."

To cut operating costs and to complement the strips, Thuett has started using a ridge-till farming system. In December or January, after harvest, he chisels the row middles while re-forming the beds with disk bedders and leaves the stalks standing. The stalks offer some protection from wind damage until the end of March. In April, he puts down herbicides while using a stalk cutter. Then he contour plants cotton back in the old ridges, usually in May. What once took him four trips across the land now takes him two.

Thuett grows his windstrips on 30-foot-wide parallel terraces. Sunny Lupton also uses lovegrass strips planted across the tops of terraces.

"I am very pleased with our stripcropping system," Lupton said. "It makes terrace maintenance simple, and we've reduced our sand-fighting about 50 percent."

Coy Franks is also pleased with windstrips on terraces. "I've had windstrips for 4 years," Franks said. "Three of those years, I did no sand-fighting whatsoever and I haven't had to replant during the 4 years."

"Since putting in the strips, I have not had to do any maintenance work on my terraces," Franks continued. "The grass breaks the water flow and there is no visible erosion in my fields. The expense to put in the strips was a lot less than I would have spent keeping my terraces up."

"As far as I am concerned, stripcropping with perennial grass is the only way to go. After it's established, you don't have to fool with it. It's growing by March and waist-high by planting time. I'm especially gratified with my choice when I see my neighbor out sandfighting with a rotary hoe while I'm relaxing at the house."

Dale D. Allen, public affairs specialist, SCS, Temple, Tex.



Windstrips of weeping lovegrass have reduced the need for emergency tillage on Ronald Thuett's farm in Garza County, Tex.

tion systems were reviewed by many people and groups inside and outside SCS. Soil and water conservation districts and commodity groups were especially involved, and their suggestions were incorporated in the alternative systems finally approved."

"The reception has been good," said Harrell, who as district conservationist works directly with farmers in developing conservation plans. "A lot of farmers thought that they needed terraces or some other expensive system to meet the FSA requirement."

Terraces are an option for many farmers using a continuous row cropping system, but most choose a less expensive crop rotation system. Conservation tillage is a common choice for farmers who plant corn or soybeans.

"Farmers have a whole different attitude about conservation compliance once they realize they don't have to take their land out of cultivation," said Harrell. "Most do have to make some changes, but there hasn't been a lot of resistance. I get such comments from farmers as 'All I have to do is plant some fescue.'"

"One of the strengths of North Carolina's alternative conservation systems is that any row-crop farmer can choose the same acceptable system as any other farmer with similar land and remain in compliance," said Clary. "This keeps our planning procedures simple and the system fair for all farmers."

Andrew R. Smith, public affairs specialist, SCS, Raleigh, N.C.

Idaho Farmers Have Choices

OVER THE PAST 10 years we have developed a very effective planning process for Public Law-566 land treatment watershed projects and State agricultural water quality projects," said Paul Calverley, State conservationist for the Soil Conservation Service in Idaho. "So when it came time to develop alternative conservation systems to help farmers meet the conservation compliance provision of the Food Security Act of 1985, we just naturally used the planning process we already had in place."

The first step was to bring together SCS district conservationists in each Major Land Resource Area (MLRA). The district conservationists then broke each of the 13 MLRA's down into similar Land Treatment Units (LTU's) based on soil, slope, climate, crop, and management system. In conjunction

with soil conservation district boards, they identified the normal cropping and conservation treatment measures being applied in each LTU.

A computer program for planning land treatment projects was adapted for evaluating alternative conservation systems in the LTU's. The program, ERO PLAN (erosion planning), was used to analyze the present soil erosion and economic conditions and how these conditions would be affected by the application of each conservation practice or combination of practices.

At first, alternatives were selected that reduced erosion to 7.5 tons or less of soil loss per acre per year and increased annual costs no more than \$12 per acre. These alternatives were reviewed by each district board to see if they met local needs. Some wanted more alternatives; some wanted fewer. Each new alternative was analyzed

Local Guidelines In New Mexico

NEARLY EVERY square inch of Roosevelt County, N.Mex., is highly erodible land. Sandy soil and dry, gusty Great Plains winds challenge farmers wanting to meet the requirements of the conservation compliance provision of the Food Security Act of 1985 (FSA).

David Sanders is one of those farmers. He and his sons Dave and Don farm 2,000 acres in the sandhill area east of Portales. "This land may be highly erodible," Sanders said, "but it grows super peanuts and excellent potatoes."

The Sanders family also raises cotton, corn, alfalfa, and milo.

Peanuts and potatoes, however, are their most profitable crops. "We'll do whatever is needed to comply with the FSA so we can continue growing these crops," Sanders said.

Under the final rules, farmers may select reasonable and practical alternative conservation systems that meet locally approved erosion reduction levels.

Guidelines for the alternative systems in Roosevelt County were developed by the Roosevelt Soil and Water Conservation District Board and the local Agricultural Stabilization and Conservation (ASC) Committee, with technical assistance from Soil Conservation Service

Under the final rules, farmers may select reasonable and practical alternative conservation systems that meet locally approved erosion reduction levels.

using ERO PLAN, and the data presented to the board for review. Local erosion control goals had to be adjusted in some districts to obtain feasible alternative conservation systems. By January, a full range of alternative systems had been developed and included in the technical guides used by SCS field offices in Idaho to develop conservation compliance plans.

In the highly erodible Palouse area of northern Idaho, District Conservationist Ken Houska said the alternative conservation systems provide a good beginning point for conservation planning and getting farmers to think about treatment needs. "Most conservation farmers are using systems that are about the same and sometimes even beyond what's required," he said. "The alternative conservation systems are being well accepted by farmers."

In Canyon County in southwestern Idaho, where wind erosion is a major concern, farmers grow more than 70 different irrigated crops. "It's a unique situation," said John Gleim, SCS district conservationist. "Farmers here need to use different types of tillage systems because of the small-seeded specialty crops they plant such as sugar beets and onions." Gleim said the alternative conservation systems for the county are based on conservation practices already in use by conservation farmers. As a result, the alternative systems are well accepted. "Farmers are surprised when they learn that it's not difficult to get a plan and be in compliance," he said. "I'm pleased with how it's working."

The average conservation plan in Canyon County covers 100 acres, and the alternative conservation systems focus on crop residue management, tillage methods, and timing of tillage and planting

operations to minimize soil disturbance during the critical March to May wind erosion period. Gleim said another alternative system is being developed for beans and sweet corn.

Three different sets of alternative conservation systems were developed in the Idaho Falls field office in southeastern Idaho for both nonirrigated and irrigated cropland. "Farmers are starting to implement their plans now because it just makes good sense," said Dennis Hadley, SCS district conservationist.

Floyd Bailey, agronomist, SCS, Boise, Idaho, and
Sharon Norris, public affairs specialist, SCS, Boise, Idaho

District Conservationist Ken Walker and his staff.

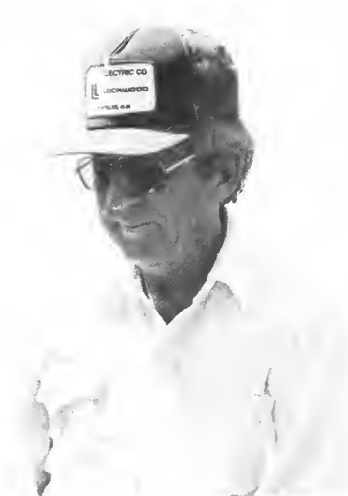
A separate guidesheet was developed for each group of similar soils. The guidesheets list several alternative cropping sequences and crop residue requirements. In the planning process, the predominant soil in a field is determined, and the alternative conservation system is based on guidelines for that soil.

Most of the conservation compliance plans in the county will require only minor adjustments in current operations. The alternative conservation system planned for Sanders' peanut fields, for example, is based on a conservation cropping

sequence of wheat following peanut harvest in late October. The wheat protects the soil during the windy season until peanuts are planted again in May. Residue management is also part of the plan.

Sanders, an ASC committee member, said, "The only change in operation we made was to change our 240-acre cotton operation to corn." Because corn produces more soil-protecting residue, this change will reduce annual erosion rates on these fields from 16 tons per acre to 4 tons per acre.

Betty Joubert, public affairs specialist, SCS, Albuquerque, N. Mex.



David Sanders is applying an alternative conservation system on his family's 2,000-acre farm in Roosevelt County, N.Mex.

Commissioners Help Set Local Standards

SEVENTY PERCENT of the cropland in Marshall County, Iowa, has been classified as highly erodible land and subject to the conservation compliance provision of the Food Security Act of 1985. To remain eligible for certain U.S.

Department of Agriculture program benefits, landowners will have to have a conservation plan developed for the 230,000 acres by 1990.

Of the more than 50,000 acres already planned, about a fourth will be in alternative conservation systems. These systems bring soil loss



Dave Jacobson

"My operation is 100 percent no-till and has been for 6 years. A lot of the county's farmers are considering going no-till if they plan to continue growing soybeans."



Bill Degner

"The worst thing you can do to soybean stubble is plow in the fall. I plan to leave 50 percent residue on my corn and 30 percent residue on my soybean land."

Kentucky Farmers Welcome Local Systems



Harold Kemp, Logan County, Ky., farmer, says, "I am surprised that these requirements haven't come sooner."

WHEN THE Food Security Act of 1985 (FSA) became law, many Logan County, Ky., farmers told Soil Conservation Service District Conservationist Bill Johnson that they were concerned about being able to meet the conservation compliance provision of the new law and still stay in business. Then alternative conservation systems were introduced.

"I was glad to see the adoption of alternative conservation systems," Johnson said. "It makes working with farmers much easier. Many of

them have been committed to grain production since the 1970's and need to continue to fully participate in U.S. Department of Agriculture acreage reduction programs."

Logan County is in the southern part of the State. It has a diverse agricultural base, but its biggest cash crops are corn and soybeans. The cropping system preferred by most Logan County farmers—and conservationists—is corn the first year followed by a small grain, usually wheat, in the fall after corn harvest. Then double cropped soybeans are no-tilled into the small grain stubble. This system allows flexibility in tillage practices, row

“Meeting the 1990 planning deadline is going to be a race, but it can be done. When most people come in for their plan, they’re surprised that they’re not as restricted as they thought they would be.”

to acceptable levels without causing undue hardships for landowners to install practices for which costs far outweigh benefits. Among acceptable alternatives in Marshall County are corn and soybeans in rotation with no-till, a cover crop after soybeans in a corn/soybean rotation,

and vegetated field borders to reduce soil erosion at end rows.

Helping to set local standards were these Marshall County Conservation District commissioners:

Photos by Lynn Betts



Craig Pfantz

“In Marshall County, most conservation compliance changes will be tillage changes. We’re sponsoring a compliance club to help farmers help each other. It’s the idea of farmers helping farmers.”



Don McKibben

“I no-till corn into soybean stubble and use conservation tillage on soybeans. On my highly erodible land, I’ll be putting in more field borders and grassed waterways.”



Don Buck

“Meeting the 1990 planning deadline is going to be a race, but it can be done. When most people come in for their plan, they’re surprised that they’re not as restricted as they thought they would be.”



Jon Martin

“Farmers’ response to getting a plan has been to go ahead and get it. But we have to have flexibility.”

adjustments, row arrangements, and residue management, all of which affect erosion rates.

Using conservation tillage to prepare a seedbed for the corn, disking the wheat in, and no-tilling the beans can hold annual soil loss in Logan County to slightly less than 6 tons per acre on highly erodible soils. Where slope exceeds 6 percent, which is unusual, corn and wheat can both be no-tilled to stay within acceptable erosion levels.

Now that alternative conservation systems are available, most Logan County farmers speak positively

about the compliance part of the FSA. “I don’t have any problem with the required cropping systems on my highly erodible land,” said Harold Kemp, who farms 2,500 acres in the southern part of the county. “I use a ripper and field cultivator to prepare a seedbed for my corn so I really don’t have to make any adjustments except to put my waterways in grass. I am surprised that these requirements haven’t come sooner since I know that soil erosion is a major problem nationwide.”

“The Farm Bill requirements are not going to make big changes in my cropping systems,” said Lonnie Epley, who farms 1,000 acres in the

northern part of the county. “I’m using a lot of no-till for my corn and I will use conservation tillage where I have johnsongrass. Keeping the waterways in fescue won’t be a problem for me because I have spent too much money during the last several years establishing them not to take care of them.”

Thus far, conservation plans have been developed for about 25 percent of the highly erodible cropland in Logan County.

Harold A. Woodward, public affairs specialist, SCS, Lexington, Ky.

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Alabama Alternatives: A Community Effort

IN ALABAMA, the Soil Conservation Service used public participation and practical erosion control practices in developing alternative conservation systems for treating highly erodible land (HEL).

The SCS staff began by drafting a list of alternative conservation practices suitable for each Major Land Resource Area (MLRA) in the State. Many groups and organizations then evaluated the list. Besides considering whether the practices were practical, the groups were asked to comment on the level of erosion that should be accepted. All soil and water conservation districts, the Alabama State Soil and Water Conservation Committee, and the Alabama Association of Conservation Districts reviewed the initial list. More than 40 other organizations and groups were invited to participate in the review.

After considering the comments received, the SCS staff tailored alternative conservation systems to address erosion problems in each of the State's eight MLRA's. Most of the systems include crop residue management, contour farming, and water management practices to safely move excess runoff from fields.

Guidesheets were prepared that show the systems by soil map units and slope ranges. The guidesheets were distributed in March to SCS field offices for use with SCS technical guides. Conservation planners and farmers can determine the requirements for a typical field by using a soil map and the appropriate guidesheet. Other combinations of practices may be substituted if they provide equal or greater erosion control than the systems on the guidesheets.

Sykes Martin, a cotton farmer in northern Alabama and past chairman of the Producer Steering Committee of the National Cotton Council, said he believes that without alternative systems many cotton producers would be put out of business. HEL determinations have been made on land operated by Martin, and he is now developing conservation plans. Martin said he is confident that the alternative conservation systems will enable him to develop practical plans for his operations.

HEL determinations on the 1,060 acres of land farmed by Walter Shaw, another northern Alabama cotton farmer, indicate that 425 of the acres are highly erodible. Shaw has requested SCS help in developing the needed conservation plans. Based on his past experiences using conservation practices such as sod-based rotations, grassed waterways and grassed strips, and diversion terraces with underground pipe outlets, he feels he will be able to develop conservation systems that meet the conservation compliance provision of the Food Security Act of 1985 with very little additional work.

Another endorsement comes from Goodwin Myrick, president of the Alabama Farmers Federation. "Conservation is a constant process and controlling erosion requires revised programs and techniques," said Myrick. "Alternative conservation systems developed for highly erodible land are proving to be effective. We appreciate the efforts that farmers and the Soil Conservation Service are making to conserve our soil."

Morris Gillespie, public affairs specialist,
SCS, Auburn, Ala.